# C400F-TMTM

CNT-400-FR CNT® Jumper with interface types TNC Male and TNC Male variable length



### **Product Classification**

**Product Type** Braided cable assembly

Product Brand CNT®
Product Series CNT-400

### General Specifications

Attachment, Connector A Factory attached

Attachment, Connector B Factory attached

Body Style, Connector A Straight

Body Style, Connector B Straight

Cable Family CNT-400

Interface, Connector A TNC Male

Interface, Connector B TNC Male

Specification Sheet Revision Level A

Variable Length For custom lengths contact 828-324-2200 or 1-800-982-1708 (toll free), or your local

CommScope representative

#### **Dimensions**

**Length**  $0 \text{ m} \mid 0 \text{ ft}$  **Nominal Size** 0.400 in

#### VSWR/Return Loss

Frequency Band VSWR Return Loss (dB)

**700–3000 MHz** 1.433 15

Jumper Assembly Sample Label

**COMMSCOPE®** 



#### Included Products

400BPTM-C - TNC Male for CNT-400 braided cable 400BPTM-C-CR - TNC Male for CNT-400 braided cable

CNT-400-FR - CNT-400-FR, CNT® 50 Ohm Braided Coaxial Cable, black non-halogenated, fire retardant

polyolefin jacket, Dca s2 d2 Compliant





#### TNC Male for CNT-400 braided cable

### **Product Classification**

 Product Type
 Braided cable connector

 Product Brand
 CNT® | ConQuest®

# General Specifications

Body StyleStraightInner Contact Attachment MethodCaptivatedInner Contact PlatingGold

InterfaceTNC MaleOuter Contact Attachment MethodClampOuter Contact PlatingTrimetal

#### **Dimensions**

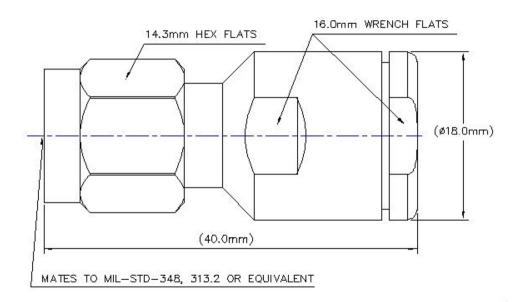
 Length
 41.24 mm | 1.624 in

 Diameter
 18 mm | 0.709 in

Nominal Size 0.405 in



## Outline Drawing



# **Electrical Specifications**

0.05 dB Insertion Loss, typical **Cable Impedance** 50 ohm **Connector Impedance** 50 ohm dc Test Voltage 1500 V 1.5 m0hm Inner Contact Resistance, maximum Insulation Resistance, minimum 5000 MOhm 0 - 6000 MHz **Operating Frequency Band** 0.4 m0hm **Outer Contact Resistance, maximum** Peak Power, maximum 5 kW RF Operating Voltage, maximum (vrms) 500 V

### VSWR/Return Loss

| Frequency Band | VSWR  | Return Loss (dB) |
|----------------|-------|------------------|
| 0-3000 MHz     | 1.046 | 32.96            |
| 3000-6000 MHz  | 1.18  | 22               |

Mechanical Specifications



**Connector Retention Tensile Force** 330 N | 74.187 lbf

0.56 N-m | 4.956 in lb **Connector Retention Torque** 

**Coupling Nut Proof Torque** 1.7 N-m | 15.046 in lb

**Coupling Nut Proof Torque Method** IEC 61169-17:9.3.6

**Coupling Nut Retention Force** 445 N | 100.04 lbf

**Coupling Nut Retention Force Method** IEC 61169-17:9.3.11

**Interface Durability** 500 cycles

**Interface Durability Method** IEC 61169-17:9.5

Mechanical Shock Test Method IEC 60068-2-27

## **Environmental Specifications**

**Operating Temperature** -40 °C to +85 °C (-40 °F to +185 °F)

**Storage Temperature** -65 °C to +125 °C (-85 °F to +257 °F)

20 °C | 68 °F **Attenuation, Ambient Temperature** 

**Average Power, Ambient Temperature** 40 °C | 104 °F

100 °C | 212 °F **Average Power, Inner Conductor Temperature** 

**Climatic Sequence Test Method** IEC 60068-1

**Corrosion Test Method** IEC 60068-2-11

**Damp Heat Steady State Test Method** IEC 60068-2-3

**Immersion Depth** 1 m

**Immersion Test Mating** Mated

**Immersion Test Method** IEC 60529:2001, IP68

**Thermal Shock Test Method** IEC 60068-2-14

**Vibration Test Method** IEC 60068-2-6

Packaging and Weights

RFACH-SVHC

Weight, net 41.85 g | 0.092 lb

## Regulatory Compliance/Certifications

| Agency        | Classification   |
|---------------|--|
| CHINA-ROHS    | Below maximum concentration value  |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |

Compliant as per SVHC revision on www.commscope.com/ProductCompliance



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ROHS

Compliant





\* Footnotes

Insertion Loss, typical 0.05√ freq (GHz) (not applicable for elliptical waveguide)

Immersion at specified depth for 24 hours **Immersion Depth** 





#### TNC Male for CNT-400 braided cable

### **Product Classification**

 Product Type
 Braided cable connector

 Product Brand
 CNT® | ConQuest®

# General Specifications

Body StyleStraightInner Contact Attachment MethodCaptivatedInner Contact PlatingSilverInterfaceTNC MaleOuter Contact Attachment MethodCrimp

Outer Contact Plating Trimetal

#### **Dimensions**

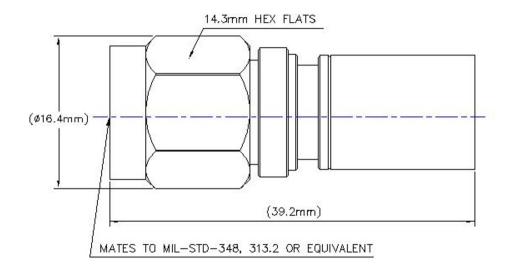
 Length
 40.74 mm | 1.604 in

 Diameter
 16 mm | 0.63 in

 Nominal Size
 0.405 in

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# Outline Drawing



# **Electrical Specifications**

0.05 dB Insertion Loss, typical **Cable Impedance** 50 ohm **Connector Impedance** 50 ohm dc Test Voltage 1500 V 1.5 m0hm Inner Contact Resistance, maximum Insulation Resistance, minimum 5000 MOhm **Operating Frequency Band** 0 - 6000 MHz 0.4 m0hm **Outer Contact Resistance, maximum** Peak Power, maximum 5 kW RF Operating Voltage, maximum (vrms) 500 V

### VSWR/Return Loss

| Frequency Band | VSWR  | Return Loss (dB) |
|----------------|-------|------------------|
| 0-3000 MHz     | 1.046 | 32.96            |
| 3000-6000 MHz  | 1.18  | 22               |

## Mechanical Specifications



**Connector Retention Tensile Force** 330 N | 74.187 lbf

**Connector Retention Torque** 0.56 N-m | 4.956 in lb

Coupling Nut Proof Torque 1.7 N-m | 15.046 in lb

**Coupling Nut Proof Torque Method** IEC 61169-17:9.3.6

**Coupling Nut Retention Force** 445 N | 100.04 lbf

**Coupling Nut Retention Force Method**IEC 61169-17:9.3.11

Interface Durability 500 cycles

**Interface Durability Method** IEC 61169-17:17

Mechanical Shock Test Method IEC 60068-2-27

### **Environmental Specifications**

**Operating Temperature**  $-40 \,^{\circ}\text{C}$  to  $+85 \,^{\circ}\text{C}$   $(-40 \,^{\circ}\text{F to} +185 \,^{\circ}\text{F})$ 

Storage Temperature  $-65 \,^{\circ}\text{C}$  to  $+125 \,^{\circ}\text{C}$  (-85  $^{\circ}\text{F}$  to  $+257 \,^{\circ}\text{F}$ )

**Attenuation, Ambient Temperature** 20 °C | 68 °F

**Average Power, Ambient Temperature** 40 °C | 104 °F

**Average Power, Inner Conductor Temperature** 100 °C | 212 °F

Climatic Sequence Test Method IEC 60068-1

Corrosion Test Method IEC 60068-2-11

Damp Heat Steady State Test Method IEC 60068-2-3

Thermal Shock Test Method IEC 60068-2-14

Vibration Test Method IEC 60068-2-6

Water Jetting Test Mating Mated

Water Jetting Test Method IEC 60529:2001, IP65

Packaging and Weights

**Weight, net** 21.52 g | 0.047 lb

## Regulatory Compliance/Certifications

Agency Classification

CHINA-ROHS Above maximum concentration value

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

ROHS Compliant/Exempted







# \* Footnotes

**Insertion Loss, typical** 0.05√ freq (GHz) (not applicable for elliptical waveguide)

# CNT-400-FR



CNT-400-FR, CNT® 50 Ohm Braided Coaxial Cable, black non-halogenated, fire retardant polyolefin jacket, Dca s2 d2 Compliant

#### **Product Classification**

Product Type Braided coaxial cable

Product Brand CNT®

Product Series CNT-400

General Specifications

Braid Coverage 90 %

Cable Type CNT-400

Jacket Color Black

**Dimensions** 

 Diameter Over Dielectric
 7.24 mm | 0.285 in

 Diameter Over Jacket
 10.29 mm | 0.405 in

 Diameter Over Tape
 7.391 mm | 0.291 in

 Inner Conductor OD
 2.74 mm | 0.108 in

 Outer Conductor OD
 8.08 mm | 0.318 in

Nominal Size 0.400 in

**Electrical Specifications** 

**Cable Impedance** 50 ohm

**Capacitance** 78 pF/m | 23.774 pF/ft

dc Resistance, Inner Conductor4.49 ohms/km | 1.369 ohms/kftdc Resistance, Outer Conductor5.61 ohms/km | 1.71 ohms/kft

dc Test Voltage 2500 V

Jacket Spark Test Voltage (rms) 4000 V

COMMSC PE°

# CNT-400-FR

Maximum Frequency 16.2 GHz

Operating Frequency Band 30 - 6000 MHz

Peak Power16 kWShielding Effectiveness90 dBVelocity85 %

Material Specifications

Braid Material Tinned copper
Dielectric Material Foam PE

Jacket Material Non-halogenated, fire retardant polyolefin

Inner Conductor Material Copper-clad aluminum wire

Shield Tape Material Aluminum

Mechanical Specifications

Minimum Bend Radius, single Bend25.4 mm | 1 inTensile Strength73 kg | 160.937 lbBending Moment0.7 N-m | 6.196 in lb

Flat Plate Crush Strength 0.7 kg/mm | 39.198 lb/in

**Environmental Specifications** 

Installation temperature  $-40 \,^{\circ}\text{C}$  to  $+60 \,^{\circ}\text{C}$  ( $-40 \,^{\circ}\text{F}$  to  $+140 \,^{\circ}\text{F}$ )

Operating Temperature  $-40 \,^{\circ}\text{C}$  to  $+60 \,^{\circ}\text{C}$  ( $-40 \,^{\circ}\text{F}$  to  $+140 \,^{\circ}\text{F}$ )

Storage Temperature  $-40 \,^{\circ}\text{C}$  to  $+60 \,^{\circ}\text{C}$  ( $-40 \,^{\circ}\text{F}$  to  $+140 \,^{\circ}\text{F}$ )

EN50575 CPR Cable EuroClass Fire PerformanceDcaEN50575 CPR Cable EuroClass Smoke Ratings2EN50575 CPR Cable EuroClass Droplets Ratingd2

Fire Retardancy Test Method UL VW1/CATVX

Smoke Index Test Method IEC 61034

Toxicity Index Test Method IEC 60754-2

Packaging and Weights

**Cable weight** 0.07 kg/m | 0.047 lb/ft

Packaging Type Reel

COMMSCOPE®

# CNT-400-FR

# Regulatory Compliance/Certifications

| Agency | Classification |
|--------|----------------|
|--------|----------------|

CENELEC EN 50575 compliant, Declaration of Performance (DoP) available

CHINA-ROHS Below maximum concentration value

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

REACH-SVHC Compliant as per SVHC revision on www.commscope.com/ProductCompliance

ROHS Compliant

